

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated August 7, 2006 has been received and its contents carefully reviewed. Applicants appreciate the indication by the Examiner that claim 3 recites allowable subject matter.

Claims 2 and 17-21 are rejected by the Examiner. Claim 3 is objected to by the Examiner. With this response, claims 2, 3, and 18 are amended, and claims 17 and 19 are canceled without prejudice or disclaimer. Claims 2, 3, and 8-21 remain pending in this application with claims 8-16 having been withdrawn from consideration.

In the Office Action, claims 2 and 17-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Akahira (US Patent 6,471,352) in view Ueno (JP 09-166783) further in view of Marumoto et al (US 6,277,529). Applicants respectfully traverse the rejection of claims 2 and 18, 20, and 21 and request reconsideration.

Claim 2 recites a method for forming an alignment layer of a liquid crystal display device having a combination of features including “driving the alignment material dropping unit from the first side to a second side of the stage to drop the alignment material through holes along a plurality of first dropping paths along a first dropping direction; shifting the alignment material dropping unit by a predetermined distance along a direction substantially perpendicular to the first dropping direction; and driving the alignment material dropping unit from the second side to the first side of the stage to drop the alignment material through holes along a plurality of second dropping paths, wherein the second dropping paths are disposed between first dropping paths.”

Applicants first submit that Akahira, Ueno, and Marumoto do not teach at least the above-identified combination of features of claim 2.

In the Office Action, the Examiner correctly acknowledges that Akahira does not disclose either “dropping alignment material” or “the specific movement of the alignment material dropping unit.” The Examiner cites the Abstract of Ueno as disclosing “using the dropping unit panels for dropping alignment material.” The Examiner cites Marumoto as curing the deficiencies in the teachings of Akahira and Marumoto concerning “the specific movement of the alignment material dropping unit.”

In particular, the Examiner cites FIG. 1 and column 1, lines 55-67 of Marumoto as disclosing “driving the alignment material dropping unit from the first side to a second side (direction 4) of the stage to drop the alignment material through holes.” Applicants submit that even assuming for the sake of argument the Examiner’s conclusion that Marumoto discloses

“driving the alignment material dropping unit from the first side to a second side (direction 4)”, Applicants submit that Marumoto does not disclose driving the alignment unit in an opposite direction to “direction 4” while dropping alignment material in a plurality of second dropping directions. Applicants respectfully submit that Marumoto does not disclose “driving the alignment material dropping unit from the second side to the first side of the stage to drop the alignment material through holes along a plurality of second dropping directions” as recited in claim 2.

Applicants further submit that the deficiency in the teachings of Akahira and Marumoto concerning “the specific movement of the alignment material dropping unit” is not cured by the teachings of Ueno. The Examiner cites Ueno as allegedly disclosing, “using the dropping unit panels for dropping alignment material.” Applicants do not reach the Examiner’s conclusion with respect to the teachings of Ueno. Applicants submit that Ueno does not cure the deficiencies in the teachings of Akahira and Marumoto.

Applicants submit that Akahira, Marumoto, and Ueno, analyzed singly or in any combination do not teach at least “driving the alignment material dropping unit from the first side to a second side of the stage to drop the alignment material through holes along a plurality of first dropping directions; shifting the alignment material dropping unit by a predetermined distance along a direction substantially perpendicular to the first dropping direction; and driving the alignment material dropping unit from the second side to the first side of the stage to drop the alignment material through holes along a plurality of second dropping a plurality of second dropping paths, wherein the second dropping paths are disposed between first dropping paths” as recited in claim 2. Accordingly, Applicants respectfully submit that claim 2 is allowable over Akahira, Marumoto, and Ueno for at least the reasons given above.

Claim 18 recites a method of forming an alignment layer of a liquid crystal display device having a combination of features including “wherein the second dropping areas are disposed between the first dropping areas.” In the Office Action, the Examiner acknowledges that Akahira does not disclose “the specific movement of the alignment material dropping unit.” The Examiner cites Marumoto and Ueno to cure the deficiencies in the teachings of Akahira, but in rejecting claims 18-21, the Examiner points to no teaching in Marumoto or Ueno relevant to “wherein the second dropping areas are disposed between the first dropping areas.” Applicants respectfully submit Akahira, Ueno, and Marumoto, analyzed singly or in any combination do not teach at least “wherein the second dropping areas are disposed between the first dropping areas.”

Accordingly, Applicants respectfully submit that claim 2 is allowable over Akahira, Marumoto, and Ueno for at least the reasons given above.

Applicants note that claims 20 and 21 each depends from claim 18 and each includes by reference all of the limitations of claim 18. Accordingly, Applicants respectfully submit that claims 20 and 21 are allowable over Akahira, Marumoto, and Ueno at least by way of the dependency of claims 2 and for the reasons given above for claim 2.

The Examiner objects to claim 3 as depending from a rejected base claim, but being allowable if rewritten in independent format reciting all of the limitations of the base claim and any intervening claims. Claim 3 has been amended to independent format reciting all of the limitations of any intervening base claims as suggested by the Examiner. Accordingly, Applicants request that the objection to claim 3 be withdrawn.

The application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. *A duplicate copy of this sheet is enclosed.*

Respectfully submitted,

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By Valerie P. Hayes
Valerie P. Hayes
Registration No. 53,005
McKENNA LONG & ALDRIDGE LLP
1900 K Street, N.W.
Washington, DC 20006
(202) 496-7500
Attorneys for Applicant